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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,953	10/12/2000	Albert Gordon Greenberg	104975	5959
7590	02/11/2004		EXAMINER	
Oliff & Berridge PLC P O Box 19928 Alexandria, VA 22320			HA, YVONNE QUY M	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/685,953	Applicant(s) GREENBERG ET AL.
	Examiner Yvonne Q. Ha	Art Unit 2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 October 2000.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-35 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-35 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 10-12-00 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Figure 5, reference 454 was used twice on two different objects. If they are the same external transmission lines, perhaps it should indicate as 451-454 or if reference 454 is unique to API interface, then it should indicate in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-12, 18, 19, 21-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Ethridge et al. (US Patent 6,353,609).

Referring to claims 1, 18, and 19, Ethridge discloses a communications node, comprising: a packet switched device (col. 2, lines 57-58, transport voice and data signal, figure 1, reference 10) that operates using IP (col. 4, lines 12-26, high speed data connection associated with IP telephony), wherein the packet switched device manages communication resources (col. 2, lines 2-44, figure 2); and a circuit switched device (figure 1, references 12, 16) that provides physical switching between a plurality of ports (col. 5, lines 31-43; col. 6, lines 14-17) based on one or more commands from the packet switched device (col. 6, lines 50-67).

Referring to claim 3 and 21, Ethridge discloses all aspects of the claimed invention and further teaches the communications resources is at least one of the circuit switched device, another communications node, at least one routing table, at least one cross connect mapping and at least one logical connection between communication nodes (col. 10, lines 47-60, figure 5).

Referring to claims 4 and 22, Ethridge discloses all aspects of the claimed invention and further teaches the circuit switched device is at least one of an optical or electronic cross connect, a optical or electrical add drop multiplexor, an optical or electronic frame forwarder, a gigabit Ethernet device, an Asynchronous Transfer Mode device, a label switch forwarding device and a SONET device (col. 6, lines 42-55, col. 7, lines 7-10 figure 2).

Referring to claims 5 and 23, Ethridge discloses all aspects of the claimed invention and further teaches only the circuit switched device passes a service data between the plurality of ports (col. 6, lines 24-65).

Referring to claims 6 and 24, Ethridge discloses all aspects of the claimed invention and further teaches the packet switched device transfers a service data between the plurality of ports (col. 5, lines 32-49).

Referring to claims 7 and 25, Ethridge discloses all aspects of the claimed invention and further teaches the packet switched device sends the one or more commands to at least one other communications node (col. 5, lines 31-35).

Referring to claims 8, 10-12, 26, 27, 28, and 30, Ethridge discloses all aspects of the claimed invention and further teaches the packet switched device sends either instructions or notifications to at least one other communications node to handle the error (i.e. destination end) (col. 7, lines 34-54, PCM data stored in each Ethernet packet which contains CRC message, to

determine the packet transmission error during routing). As Ethridge discloses routing the voice and data packets to the appropriate local user base on MAC address, and may also convert the data and voice packets into voice signals or into other types of packets that are compatible with user's device. It is inherent that as error occurs along the transmission path to destination, it would be efficient for the receiving end (i.e. any communication node, data to voice or data to data) to access the error, reassemble the data in its required format, or request/notify the originating end for the next action. It would be logical for the receiving end to initiate the next step for error treatment.

Referring to claims 9 and 29, Ethridge discloses all aspects of the claimed invention and further teaches the error condition is a pattern of lost or corrupted data (col. 6, lines 13-23, to avoid frame loss and delay; col. 6, lines 53-55, CRC during transmission of packet).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 13-17, 20, 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ethridge et al. (US Patent 6,353,609) in view of Cao et al. (USPUB 2002/0181485).

Referring to claims 2 and 20, Ethridge discloses all aspects of the claimed invention but failed to teach the circuit switch device determines one or more commands to at least one of establish, maintain, restore and break down one or more communications paths based either on a condition of a network or a routing request. However, Cao discloses detection of fault on MPLS

system with SONET fault indicators of LOS, LOP, LOF-loss of signal, pointer, frame; In addition, the LSRS-ingress and LSRE-egress process the selection of flow internally and externally of the network (paragraph 56). Cao further discloses the establishment of a primary and secondary or backup path (paragraph 7) and restoration mechanism (paragraph 24). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching Ethridge digital packet access for transporting voice and data signals between central office and remote local users with Cao explicit routing protocols between source and destination routers. The LAN, WAN, IP services have increased. Therefore, there is a need of a higher level of reliability and rapid recovery from a failure. Explicit routing establishes a plurality routed paths between source/destination routers, where the failure information will propagate maintenance information such as LOS, LOP to detect failures. In the case of a failure, these nodes may establish another path. The network management system would consist of operation capabilities such as set-up, maintenance on connections, restore and disconnect. These management functions are well known in the art.

Referring to claims 13 and 31, Ethridge discloses all aspects of the claimed invention but failed to teach the packet switched device handles at least one of managing peer interfaces, managing external interfaces, managing internal resources, managing faults, and managing internal faults at the network edge. However, Cao discloses detection of fault on MPLS system with SONET fault indicators of LOS, LOP, LOF-loss of signal, pointer, frame; In addition, the LSRS-ingress and LSRE-egress process the selection of flow internally and externally of the network (paragraph 56). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching Ethridge digital packet access for transporting

voice and data signals between central office and remote local users with Cao explicit routing protocols between source and destination routers. The LAN, WAN, IP services have increased. Therefore, there is a need of a higher level of reliability and rapid recovery from a failure. Explicit routing establishes a plurality routed paths between source/destination routers, where the failure information will propagate maintenance information such as LOS, LOP to detect failures. In the case of a failure, these nodes may establish another path.

Referring to claims 14 and 32, Ethridge discloses all aspects of the claimed invention but failed to teach the packet switched device uses at least one of interior or exterior protocols, Border Gateway Protocol, Open Shortest Path First and Intermediate Systems-Intermediate Systems signals to discover a network topology. However, Cao discloses different protocols are used for ingress/ingress label switch routers (paragraph 23). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching Ethridge digital packet access for transporting voice and data signals between central office and remote local users with Cao explicit routing protocols between source and destination routers using next hop mapping table. The LAN, WAN, IP services have increased. Therefore, there is a need of a higher level of reliability and rapid recovery from a failure. Explicit routing establishes a plurality routed paths between source/destination routers, where the failure information will propagate maintenance information such as LOS, LOP to detect failures. In the case of a failure, these nodes may establish another path. OSPF and BFP protocols are used to generate a label information base table and next mapping table for explicit routing.

Referring to claims 15 and 33, Ethridge discloses all aspects of the claimed invention and further teaches the packet switched device uses at least one of the network topology and a

bandwidth in use (col. 10, lines 47-60, figure 5) in determining the one or more commands (col. 6, lines 50-67).

Referring to claims 16 and 34, Ethridge discloses all aspects of the claimed invention and further teaches the packet switched device sends at least one of the one or more commands to at least one other communications node (col. 5, lines 31-35).

Referring to claims 17 and 35, Ethridge discloses all aspects of the claimed invention but failed to teach at least one of the one or more commands is sent to the at least one other communications node using at least one of signaling via IP packets, resource reservation protocol (RSVP) and Constraint Based Routing-Label Distribution Protocol (CR-LDP).

Double Patenting

5. Claims 13 and 31 are provisionally rejected under the judicially created doctrine of double patenting over claim 4 of copending Application No. 09/685952. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: the packet switched device handles at least one of managing peer interfaces, managing external interfaces, managing internal resources, managing faults, and managing internal faults at the network edge.

Claims 14 and 32 are provisionally rejected under the judicially created doctrine of double patenting over claim 5 of copending Application No. 09/685952. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: the packet switched device (i.e. the communication node) uses at least one of interior or exterior protocols, Border Gateway Protocol, Open Shortest Path First and Intermediate Systems-Intermediate Systems signals to discover a network topology.

Claims 17 and 35 are provisionally rejected under the judicially created doctrine of double patenting over claim 7 of copending Application No. 09/685952. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: one of the one or more commands is sent to the at least one other communications node using at least one of signaling via IP packets, resource reservation protocol (RSVP) and Constraint Based Routing-Label Distribution Protocol (CR-LDP). Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Anderson, Sr. (US Patent 6,522,629) discloses traffic manager, gateway signaling and provisioning service for packetized networks with broadband and legacy services
- Berlovitch et al. (US Patent 6,061,334) discloses assigning virtual LANs to a switched network
- Hluchyj et al. (US Patent 6,282,193) discloses apparatus for a remote access server

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne Q. Ha whose telephone number is 703-305-8392. The examiner can normally be reached on Monday-Friday 7a.m.-4p.m. Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ajit Patel can be reached on 703-308-5347. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

YQH


Ajit Patel
Primary Examiner